Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Lake View Layout and Jayamuni Layout in Kempegowda ward no-01 of Yelahanka Sub Division

							Estimate Cost		15.00 Lakhs
No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
1	Earth work **excavation by manual means for drains**,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work . Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kankar/Moorum.(Tipper 5.5 m3) (V-I.No 1.4,Page No-5 PWD SR 2021-22) & (V-III Page No.3, Item No.1.1 A of PWD SR 2021-22)								
	Basic Rate	186.00							
	Loading And Unloading	118.00							
	Sub Total	304.00							
	Area Weightage 10%	30.40							
	Total Rate	**334.40**							
	RCC Drain								
	Jai Muni Layout								
		2	62.00	1.10	1.00	136.40			
	Culverts	1	6.00	1.50	1.00	9.00			
						145.40	**Cum**	**334.40**	**48,621.76**
2	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) **Mix 1:3:6 (M10) Using 40 mm** nominal size graded crushed coarse aggregates (V-1, P.No-15, I No-2.1.3 of PWD SR 2021-22)(Issue rate on 07-07-22)								
	Basic Rate	**5554.00**							
	Area Weightage 10%	**555.40**							
	Total Rate	**6109.40**							
	RCC Drain								
	Jai Muni Layout								
		2	62.00	1.10	0.15	20.46			
	Culverts	1	6.00	1.50	0.15	1.35			
						21.81	**Cum**	**6109.40**	**133246.01**
3	Supplying, **Fitting and Placing un-coated TMT bar** Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22) (Issue rate on 07-07-22)								
	Basic Rate	**92170.00**							
	Area Weightage 10%	**9217.00**							
	Total Rate	**101387.00**							
	For RCC Drain, 60kg/Cum	1	39.06	60.00		2343.60			
	For CC Culvert, 90kg/Cum	1	2.68	90.00		241.38			
						2584.98			
						2.58	**Tn**	**101387.00**	**262083.37**

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Providing and laying in position **Reinforced cement concrete** for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) **M20 Design Mix Using 20 mm** nominal size graded crushed coarse aggregates (V-1,P.No.17, I.No.2.4.2 of PWD SR 2021-22) Apendx I, V-I P.No-115)(Issue rate on 07-07-22)								
	Basic Rate	**5968.00**							
	5% Centring	**298.40**							
	Sub Total	**6266.40**							
	Area Weightage 10%	**626.64**							
	Total Rate	**6893.04**							
	RCC Drain Rft								
	Jai Muni Layout								
		2	62.00	0.90	0.15	16.74			
	RCC Drain Wall								
	Jai Muni Layout								
		4	62.00	0.15	0.60	22.32			
						39.06			
	Culvert Raft	1	6.00	1.20	0.20	1.44			
	CulvertWall	2	6.00	0.23	0.45	1.24			
						2.68			
						41.74	**Cum**	**6893.04**	**287729.28**
5	Providing and fixing precast reinforced cement concrete **covering slabs of 10Cm thick** made of M25 with OPC cement,@340kgs/cum with 20mm and down size graded granite metal coarse aggregate @0.70cum and fine aggregate & 0.74 cum with superplasticizer machine,mixed, Inculding providing and removing centering, shuttering, strutting propping etc., for edges of slabs with TMT steel (Fe500) cost of all materials, labour, all lead and lift, HOM of machinery, curing, including cost of reinforcement etc., complete as directed by the Engineer in charge of the work.(Exclusive of GST and Area Loading Charges)								
	Basic Data Rate	**2072.00**							
	Appayanna Road								
	Jai Muni Layout								
		2	62.00	0.90		111.60			
						111.60			
						111.60	**Sqm**	**2072.00**	**231235.20**
6	Providing and fixing precast reinforced cement concrete **covering slabs of 23Cm thick** made of M25 with OPC cement,@340kgs/cum with 20mm and down size graded granite metal coarse aggregate @0.70cum and fine aggregate & 0.74 cum with superplasticizer machine,mixed, Inculding providing and removing centering, shuttering, strutting propping etc., for edges of slabs with TMT steel (Fe500) cost of all materials, labour, all lead and lift, HOM of machinery, curing, including cost of reinforcement etc., complete as directed by the Engineer in charge of the work.(Exclusive of GST and Area Loading Charges)								
	Basic Data Rate	**5037.00**							
	RCC Culvert	1	6.00	1.20		7.20			
						7.20	**Sqm**	**5037.00**	**36266.40**

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Earth work in surface **excavation by mechanical means** for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work ((V-I, P.No-8, I No-1.12 of PWD SR 2021-22)								
	Basic Rate	**65.00**							
	Area Weightage 10%	**6.50**							
	Total Rate	**71.50**							
	Edge Correction/ Porfile Correction								
	Asphaly Road								
	Jai Muni Layout	1	56.00	1.10	0.30	18.48			
						18.48	**Cum**	**71.50**	**1,321.32**
8	Construction of **Granular Sub-Base of** required grading as per design mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401 .(V-III, I No-4.1V,P No-19,KPWD SR 2021-22)								
	Basic Rate	**2347.00**							
	Area Weightage 10%	**234.70**							
	Total Rate	**2581.70**							
	Edge Correction/ Porfile Correction								
	Asphaly Road								
	Jai Muni Layout	1	56.00	1.10	0.15	9.24			
						9.24	**Cum**	**2581.70**	**23,854.91**
9	Providing, laying, spreading and compacting graded stone aggregate to **wet mix macadam** specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density (V-III, P.No-24,I No-4.27A)of PWD SR 2021-22).								
	Basic Rate	**2394.00**							
	Area Weightage 10%	**239.40**							
	Total Rate	**2633.40**							
	Edge Correction/ Porfile Correction								
	Asphaly Road								
	Jai Muni Layout	1	56.00	1.10	0.223	13.74			
						13.74	**Cum**	**2633.40**	**36,174.49**
10	Providing and applying **primer coat** with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means. (V-III, P.No-29,I No-5.1(i) of PWD SR 2021-22).(Issue rate on 07-07-22)								
	Basic Rate	**42.00**							

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Area Weightage 10%	4.20							
	Total Rate	46.20							
	Edge Correction/ Porfile Correction								
	Asphaly Road								
	Jai Muni Layout	1	56.00	1.10		61.60			
						61.60	Sqm	46.20	2,845.92
	Providing and applying **tack coat** with VG-10 Bitumen using pressure distributor at the rate of 0.20 kg/m2on the prepared bituminous surface cleaned with mechanical broom.(V-III, P.No-145,I No-21A-3 of PWD SR 2021-22).(Issue rate on 07-07-22)								
	Basic Rate	12.00							
	Area Weightage 10%	1.20							
	Total Rate	13.20							
	Asphaly Road								
	Jai Muni Layout	1	56.00	6.00		336.00			
						336.00	Sqm	13.20	4,435.20
12	Providing and laying **Dense Graded Bituminous Macadam** with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects. (V-III, P.No-33,I No-5.12C of PWD SR 2021-22).(Issue rate on 07-07-22)								
	Basic Rate	9139.00							
	Area Weightage 10%	913.90							
	Total Rate	10052.90							
	Asphaly Road								
	Jai Muni Layout	1	56.00	1.10	0.05	3.08			
						3.08	Cum	10052.90	30,962.93
13	Providing and laying **Bituminous Concrete with 40/60 TPH** capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (V-III, P.No.36, I.No.5.16C of PWD SR 2021-22).(Issue rate on 07-07-22)								
	Basic Rate	9827.00							
	Area Weightage 10%	982.70							
	Total Rate	10809.70							
	Asphaly Road								
	Jai Muni Layout	1	56.00	6.00	0.04	13.44			
						13.44	Cum	10809.70	145282.37
14	**Cost of Haulage Excluding Loading** and Unloading Taking output 10 t load and lead 10 km = 100 t.km(V-III Page No.3, Item No.1.4A of PWD SR 2021-22)								
	Basic Rate	12.00							
	8KM Lead = 12*8	96.00							
	Area Weightage 10%	9.60							
	Total Rate	105.60							
	Qty frm Item No-1		145.4	1.28		186.11			
	Qty frm Item No-7		18.5	1.28		23.65			
						209.77	t.Km	105.60	22,151.33

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
							Total Construction Cost	1266210.49
							18% GST for Construction Cost	227917.89
							Sub Total	1494128.37
							Utility Shifting,Miscellaneous and Rounding off	5,871.63
							GRAND TOTAL	1500000.00

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2021-2022, issue rates dated 07-07-2022 and Data Rates

Assistant Engineer
Ward No-01
BBMP Bangalore

Asst. Executive Engineer,
Yelahanka Sub Division
BBMP Bangalore

Executive Engineer,
Yelahanka Division
BBMP Bangalore

Administrative Approval

Accorded For B.15.0 Lakhs.
Head of A/C P-3726
CR NO :37 Dt:22/8/2022

TA

CE (NK)

TECHNICALLY SANCTIONED FOR Rs. 15.00 lakhs
Rupees Fifteen lakhs Only
Under P-3726
Zonal Public Works
Registered as CE ( ) No. 99
Subject to conditions contained in enclosed memo EE ( ) No. 93 /9/
Dt. 22/8/2022 Estimate A/ Sanctioned
BBMP/EE/YNK-DIS/23/22-23 No. 23
Dated 22/8/2022 Rs. 15.00 Lakhs

Executive Engineer